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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,850	11/02/2001	Sreekumar Pillai	J6673(C)	6359
201	7590	02/10/2006	EXAMINER	
UNILEVER INTELLECTUAL PROPERTY GROUP 700 SYLVAN AVENUE, BLDG C2 SOUTH ENGLEWOOD CLIFFS, NJ 07632-3100			KANTAMNENI, SHOBHA	
			ART UNIT	PAPER NUMBER
			1617	

DATE MAILED: 02/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/003,850	<b>Applicant(s)</b> PILLAI ET AL.	
	<b>Examiner</b> Shobha Kantamneni	<b>Art Unit</b> 1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,2,5,6,9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) NONE is/are allowed.
- 6) ☒ Claim(s) 1-2, 5-6, 9-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

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### **DETAILED ACTION**

Claims 1, 2, 5-6, and 9-10 are pending.

This Office Action is a response to applicants response filed on 11/04/05.

Applicant's arguments are not persuasive, and the rejection of claims 1, 2, 5, 6, and 9 under 35 U.S.C. 103(a) as being unpatentable over Granger et al. (US 5,723,139, PTO-892) and Pillai et al. (US 6,548,072, PTO-892), in view of Liu et al. (5,976,555, PTO-892), and Soares et al. (US 5,941,116, PTO-1449 of record) is MAINTAINED. See under response to arguments.

Applicant's arguments are not persuasive, and the rejection of claims 1, 2, 5, 6, and 10 under 35 U.S.C. 103(a) as being unpatentable over Granger et al. (US 5,723,139, PTO-892), Pillai et al. (US 6,548,072, PTO-892), and Meybeck (FR 2 777 179; PTO-892) in view of Liu et al. (5,976,555, PTO-892), and Soares et al. (US 5,941,116, PTO-1449 of record) is MAINTAINED. See under response to arguments.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5, 6, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Granger et al. (US 5,723,139, PTO-892) and Pillai et al. (US

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6,548,072, PTO-892), in view of Liu et al. (5,976,555, PTO-892), and Surares et al. (US 5,941,116, PTO-1449 of record), rejection of record.

Granger et al. teach a skin conditioning composition comprising a compound selected from retinal or retinyl ester in an amount from about 0.001 % to about 10 %, in combination with a retinoid booster, polycyclic triterpene carboxylic acid, glycyrrretinic acid in an amount from about 0.0001 % to about 50%. See column 1, line 42-column 3, line 39. It is further taught that the combination of retinal or a retinyl ester with a polycyclic triterpene carboxylic acid, glycyrrretinic results in synergistic inhibition of keratinocyte differentiation. Retinoid boosters such as linoleic acid, arachidonic acid etc. are also disclosed as optional ingredients in the composition. See column 4, lines 29-38. The composition is applied to the skin for treating a skin conditions such as dry skin, photodamaged skin, appearance of wrinkles, age spots, acne, skin lightening etc. See column 12, claims 1-6. Granger et al. further disclose that the skin care composition therein is stored in a suitable container to form a skin care product. See column 11, EXAMPLE 6-7.

Granger et al. do not teach the presence of phytoestrogens in the composition.

Granger et al. do not teach the storage of first composition comprising retinoid, and second composition comprising retinoid booster, phytoestrogens, in separate compartments joined together.

Pillai et al. US 6,548,072 teach Skin care compositions containing 5 % w/w of CHICK PEA Extract, and 0.01 % w/w of Linoleic acid for improving the appearance of wrinkled, dry, flaky or aged skin. See abstract, column 12, EXAMPLE 10. Pillai teaches

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that Organic chick pea extracts contain phytoestrogens such as genistein, formononetin, daidzein, biochanin A etc., and are useful in improving appearance of wrinkled, lined, dry, flaky, aged or photodamaged skin. See column 2, lines 24-27.

Liu et al. teach that retinoids such as retinal, retinyl ester in skin care compositions are unstable due to oxidation or isomerization to non-efficacious chemical forms with the result that the amount of retinoid actually present to provide the beneficial effects is reduced in a short period of time. See column 2, lines 40-55. It is further taught that several stable compositions for skin care are supplied in two bottles (separating retinoids from other cosmetic ingredients), portions of which are mixed together just prior to use. See column 2, lines 54-62.

Suares et al teach skin care formulations employing a dual container system for multi composition use. Those formulation taught by Suares et al employ retinoid compositions useful for anti-wrinkle dermal application. See column 3, Table I; column 4, lines 59-64; TABLE III, column 8, and TABLE IV, column 9. Suares also teach anti-wrinkle composition containing retinoid and cleanser containing phytoestrogen, Genistein in separate compositions. See TABLE III, column 8, and TABLE IV, column 9. Suares et al. further disclose that the first and second compositions are stored in respectively separate containers, being joined together (see abstract and Fig. 1-2).

From the teachings of Pillai, it would have been obvious to a person of ordinary skill in the art at the time of invention to add phytoestrogens such as daidzein, formononetin or genistein to the compositions of Granger et al. since phytoestrogens are used to treat skin conditions such as dry, flaky, wrinkled, photodamaged skin. It is

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generally considered a prima facie obvious to combine compounds each of which are taught by the prior art to be useful for the same purpose, in order to form a composition, which is used for the very same purpose. The idea of combining them flows logically from their having been used individually in the prior art. As shown by recited teachings of Granger, and Pillai et al., the instant claims contain two compounds retinoids and phytoestrogens used for improvement of skin appearance. *In re kirkhoven*, 626 F.2d 848, 205 USPQ 1069 (CCPA 1980).

It would have been obvious to a person of ordinary skill in the art at the time of invention to employ a two compartment system for separately storing retinal or retinyl ester in a first composition, and retinoid boosters such as glycyrrretinic acid, linoleic acid, phosphatidylcholine and phytoestrogens in the second composition.

One having ordinary skill in the art would have been motivated at the time of invention to employ two compartments to separately store retinol or retinyl ester, and retinoid booster glycyrrretinic acid and phytoestrogens because Liu et al. teach that the skin compositions containing retinol or retinyl esters are unstable as they quickly lose their activity by, for example, either being oxidized or isomerizing to non-efficacious chemical forms and chemical degradation.

Moreover, several known stable skin care compositions containing retinol or retinyl esters are known to be supplied in two bottles or two portions to separate retinoids from other cosmetic ingredients to keep retinoids from chemical reactions with other ingredients (the first and second compositions are known to be stored in

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respectively separate compartments or containers, being joined together) and are mixed together just prior to use and based on the teachings of Liu and Soares.

Therefore, one of ordinary skill in the art would have found it obvious to employ two compartments for separately storing retinol or retinyl ester in a first composition and retinoid boosters, phytoestrogens in the second composition to keep retinol or retinyl ester from reacting with retinoid boosters and phytoestrogens in order to preserve the stability of retinoids in the compositions to avoid chemical degradation, and keep retinoids from chemical reactions with other ingredients to avoid chemical degradation. Thus, the teachings of Liu in particular and Soares et al. have clearly provided the motivation to employ the separate compartments herein.

Response to arguments:

Applicant's argument that "Storage of the compositions in separate containers is novel and unobvious because None of the cited documents addresses the problem of retinoid stability in the presence of phytoestrogens and/ or boosters. Consequently, there is no suggestion for a person skilled in the art to try to physically separate the retinoids, the boosters, and the phytoestrogens.' This argument is not persuasive. Granger et al. teach a skin conditioning composition comprising a compound selected from retinal or retinyl ester in an amount from about 0.001 % to about 10 %, in combination with a retinoid booster, polycyclic triterpene carboxylic acid, glycyrrhetic acid in an amount from about 0.0001 % to about 50%. Pillai et al. US 6,548,072 teach Skin care compositions containing 5 % w/w of CHICK PEA Extract which contains phytoestrogens such as genistein, formononetin, daidzein, biochanin A etc and 0.01 %

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w/w of Linoleic acid for improving the appearance of wrinkled, dry, flaky or aged skin. Liu et al. teach that retinoids such as retinal, retinyl ester in skin care compositions are unstable due to oxidation or isomerization to non-efficacious chemical forms, and further teach that several stable compositions for skin care are supplied in two bottles separating retinoids from other cosmetic ingredients, portions of which are mixed together just prior to use. Thus, one of ordinary skill in the art would have been motivated at the time of invention to employ two compartments to separately store retinol or retinyl ester, and retinoid booster glycyrrhetic acid and phytoestrogens because Liu et al. teach that the skin compositions containing retinol or retinyl esters are unstable i.e quickly lose their activity either by oxidation or isomerizing to non-efficacious chemical forms and chemical degradation.

Thus, one of ordinary skill in the art would have found it obvious to employ two compartments for separately storing retinoids in a first compartment and retinoid booster in the second composition to keep retinoids from reacting with its booster in order to preserve the stability of retinoids and avoid chemical degradation prior to use.

Claims 1, 2, 5, 6, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Granger et al. (US 5,723,139, PTO-892), Pillai et al. (US 6,548,072, PTO-892), and Meybeck (FR 2 777 179; PTO-892) in view of Liu et al. (5,976,555, PTO-892), and Soares et al. (US 5,941,116, PTO-1449 of record), rejection of record.

Granger et al. , and Pillai et al. are as discussed above.



Granger et al. do not teach the presence of phosphatidylcholine in the composition.

Granger et al. do not teach the storage of first composition comprising retinoid, and second composition comprising retinoid boosters, phytoestrogens, in separate compartments joined together.

Meybeck et al. teach cosmetic and skin care compositions comprising retinoid, retinoid boosters such as 22-29 % of phosphatidyl choline, 0.1 % of glycyrrhetic acid. These compositions can be used for treating skin conditions such as acne, dry skin, etc.. See page 3, lines 24-27; pages 8-9, Examples 1-2.; page 13, Example 11.

From the teachings of Meybeck et al., it would have been obvious to a person of ordinary skill in the art at the time of invention to add retinoid booster, phosphatidyl choline to the compositions of the Granger et al., since phosphatidyl choline is used to treat skin conditions such as dry skin, aged skin, acne etc. From the teachings of Pillai, it would have been obvious to a person of ordinary skill in the art at the time of invention to add phytoestrogens such as daidzein, formononetin or genistein to the compositions of Granger et al. since phytoestrogens are used to treat skin conditions such as dry, flaky, wrinkled, photodamaged skin. It is generally considered a prima facie obvious to combine compounds each of which are taught by the prior art to be useful for the same purpose, in order to form a composition, which is used for the very same purpose. The idea of combining them flows logically from their having been used individually in the prior art. As shown by recited teachings of Granger, Pillai, and Meybeck et al., the instant claims contain compounds such as retinoids, phosphatidyl choline, glycyrrhetic

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acid and phytoestrogens used for improvement of skin appearance. *In re kirkhoven*, 626 F.2d 848, 205 USPQ 1069 (CCPA 1980).

It would have been obvious to a person of ordinary skill in the art at the time of invention to employ a two compartment system for separately storing retinal or retinyl ester in a first composition, and retinoid boosters such as glycyrrretinic acid, linoleic acid, phosphatidylcholine and phytoestrogens in the second composition.

One having ordinary skill in the art would have been motivated at the time of invention to employ two compartments to separately store retinol or retinyl ester, and retinoid booster glycyrrretinic acid and phytoestrogens because Liu et al. teach that the skin compositions containing retinol or retinyl esters are unstable as they quickly lose their activity by, for example, either being oxidized or isomerizing to non-efficacious chemical forms and chemical degradation.

Moreover, several known stable skin care compositions containing retinol or retinyl esters are known to be supplied in two bottles or two portions to separate retinoids from other cosmetic ingredients to keep retinoids from chemical reactions with other ingredients (the first and second compositions are known to be stored in respectively separate compartments or containers, being joined together) and are mixed together just prior to use and based on the teachings of Liu and Suares.

Therefore, one of ordinary skill in the art would have found it obvious to employ two compartments for separately storing retinol or retnyl ester in a first composition and retinoid boosters, phytoestrogens in the second composition to keep retinol or retinyl ester from reacting with retinoid boosters and phytoestrogens in order to preserve the

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stability of retinoids in the compositions to avoid chemical degradation, and keep retinoids from chemical reactions with other ingredients to avoid chemical degradation. Thus, the teachings of Liu in particular and Soares et al. have clearly provided the motivation to employ the separate compartments herein.

Response to arguments:

Applicant's argument that "Meybeck appear to be directed to a cosmetic vehicle containing siloxane. Just because Meybeck appear to disclose phosphatidyl choline and glycyrrhetic acid somewhere in its disclosure, would not make it obvious for one skilled in the art to combine these materials with retinoids and with retinoid boosters in a dual compartment package to come up with the present invention" is not persuasive. Meybeck discloses a skin care product for treating skin conditions such as acne, dry skin, comprising retinoid, and retinoid boosters phosphatidyl choline, and glycyrrhetic acid. See page 13, Example 11, wherein Lecithine de soja (contains phosphatidyl choline), Acide glycyrrhetinique, and palmitate de vitamine A are present. Pillai et al. US 6,548,072 teach Skin care compositions containing 5 % w/w of CHICK PEA Extract which contains phytoestrogens such as genistein, formononetin, daidzein, biochanin A etc and 0.01 % w/w of Linoleic acid for improving the appearance of wrinkled, dry, flaky or aged skin. Thus, from the teachings of Pillai, and Meybeck, it would have been obvious to a person of ordinary skill in the art at the time of invention to combine phytoestrogens such as daidzein, formononetin or genistein with retinoid, and retinoid boosters phosphatidyl choline, and glycyrrhetic acid since phytoestrogens are used to treat skin conditions such as dry, flaky, wrinkled, photodamaged skin. And as discussed

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above one of ordinary skill in the art would have found it obvious to employ two compartments for separately storing retinol or retinyl ester in a first composition and retinoid boosters, phytoestrogens in the second composition to keep retinol or retinyl ester from reacting with retinoid boosters and phytoestrogens in order to preserve the stability of retinoids in the compositions to avoid chemical degradation, and keep retinoids from chemical reactions with other ingredients to avoid chemical degradation. Thus, the teachings of combined references have clearly provided the motivation to employ compositions, and employ separate compartments for the compositions herein.

Rule 132 Declaration:

Applicant's argument that "the data show a more than additive effect of Glycyrrhetic acid and phosphatidyl choline (B2) in boosting retinal activity transglutaminase production.....The Declaration supports unexpected results as claimed". This argument is not persuasive because it is not commensurate in scope with the instant claims which are directed to the product, and not the intended use. Furthermore, Meybeck discloses a skin care product comprising retinoid, and retinoid boosters phosphatidyl choline, and glycyrrhetic acid. Thus, the testing results are not deemed unexpected ~~because~~ because Meybeck teaches the same skin care composition.

**Conclusion**

No claims are allowed.

**THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period, will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shobha Kantamneni whose telephone number is 571-272-2930. The examiner can normally be reached on Monday-Friday, 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shobha Kantamneni, Ph.D  
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Art Unit :1617\*

SHENGJUN WANG  
PRIMARY EXAMINER